

UTILITY PATENT APPLICATION TRANSMITTAL

09/15/99
JCS74 U.S. PTO

Address to: Box PATENT APPLICATION Assistant Commissioner for Patents Washington, DC 20231	Attorney Docket No.	5016 (MEDO 5016 PUS)
	Inventor(s) or Application Identifier: J. Clarke Stevens; Carol L. Stimmel	

1. This application entitled METHOD AND SYSTEM FOR AUTOMATING INVENTORY MANAGEMENT OF CONSUMER ITEMS is:

- a. X A new application under 37 C.F.R. §1.53(b).
- b. A continuation divisional or continuation-in-part application under 37 C.F.R. § 1.53(b) of prior application Serial No. / filed on entitled .

Application elements and other attached papers:

2. X Specification (incl. Claims and Abstract) [Total Pages 17]
3. X Drawings (informal X formal) [Total Sheets]
4. X Oath or Declaration
- a. X Newly-executed
- b. Copy from a prior application (37 C.F.R. § 1.63(d))
5. Incorporation By Reference: The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Item 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. This application is filed by fewer than all the inventors named in the prior application, 37 C.F.R. § 1.53(d)(4).
- a. **DELETE** the following inventor(s) named in the prior nonprovisional application:

- b. The inventor(s) to be deleted are set forth on a separate sheet attached hereto.

CERTIFICATION UNDER 37 C.F.R. § 1.10

I hereby certify that this UTILITY PATENT APPLICATION TRANSMITTAL and the documents referred to as attached therein are being deposited on the below date with the United States Postal Service in an envelope as "Express Mail Post Office to Addressee" addressed to: Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

Express
Mail Label No. EL187881635US

Julie A. Barber
(Type or print name of person mailing paper)

Date of Deposit: September 15, 1999

Julie A. Barber
(Signature of person mailing paper)

7. Preliminary Amendment:

- a. ☐ A Preliminary Amendment is attached.
- b. ☐ Cancel in this application original claims _____ of the prior application before calculating the filing fee.
- c. ☐ Please amend the specification by inserting before the first line the sentence:
- "This is a
- ☐ continuation
- ☐ divisional
- of copending application(s)
- Serial number _____ / _____ filed on _____."
- d. ☐ A Petition to Suspend Prosecution For The Time Necessary to File An Amendment (New Application Filed Concurrently) is attached.

8. Small entity status:

- a. ☐ A small entity statement is attached.
- b. ☐ A small entity statement was filed in the prior nonprovisional application and such status is still proper and desired.
- c. ☐ Is no longer desired.

9. Fee Calculation:

FOR	NUMBER FILED	NUMBER EXTRA	RATE	CALCULATIONS
TOTAL CLAIMS (37 C.F.R. § 1.16(c))	23 -20 =	3	X 18.00	54.00
INDEPENDENT CLAIMS (37 C.F.R. § 1.16(b))	2 -3 =		X 78.00	
MULTIPLE DEPENDENT CLAIMS (if applicable) (37 C.F.R. §1.16(d))			260.00	
			BASIC FEE (37 C.F.R. § 1.16(a))	760.00
			Total of above Calculations =	814.00
Reduction by 50% for filing by small entity (Note 37 C.F.R. §§ 1.9, 1.27, 1.28)				
Assignment Recordal Fee			40.00	40.00
			TOTAL =	854.00

10. ☒ A check in the amount of \$ 854.00 is enclosed.
11. ☒ The Commissioner is hereby authorized to credit overpayments or charge the following fees (or any deficiency therein) to Deposit Account No. 02-3978:
- a. ☒ Fees required under 37 C.F.R. § 1.16.
- b. ☒ Fees required under 37 C.F.R. § 1.17.

12. Maintenance of Copendency of Prior Application

☐ A request for extension of time and the appropriate fee have been filed in the pending **prior** application (or are being filed in the prior application concurrently herewith) to extend the period for response until _____.

13. ☐ An Information Disclosure Statement (IDS) is attached, along with the following indicated attachments thereto:

a. ☐ Form PTO/SB/08 (_____ sheet(s))

b. ☐ Copies of references cited

14. ☐ Certified copy of priority document(s)

15. ☒ Return Receipt Postcard

16. ☐ Other: _____

17. ☒ An Assignment of the invention to MediaOne Group, Inc.

a. ☒ is attached.

b. ☐ was recorded on _____ at Reel _____, Frame _____.

18. The power of attorney in the prior application is to:

Name of Attorney of Record

Reg. No.

☐ The power appears in the original papers in the prior application.

☐ The power does not appear in the original papers, but was filed on _____.

☐ A new power has been executed and is attached.

19. Correspondence Address: Please address all future communications to:

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Respectfully submitted,

Date September 15, 1999

Jeremy J. Curcuri
Name: Jeremy J. Curcuri
Registration No.: 42,454

☒ Agent of record
☐ Filed under Rule 34(a)

METHOD AND SYSTEM FOR AUTOMATING INVENTORY MANAGEMENT OF CONSUMER ITEMS

TECHNICAL FIELD

5 The present invention relates to a method and system for automating
the management of an inventory of consumer items at a consumer location.

BACKGROUND ART

10 With the many advances in the computer field today, many devices
are becoming computerized that in the past were not computerized. For example,
electronic organizers and hand-held computers are now available to the general
consumer. In the future, it is expected that many household items, including
appliances, will utilize computer technology to provide the consumer with smart or
intelligent devices.

As smart device technology is still in its early stages, there is a need
for new intelligent devices that assist the user in day-to-day activities.

DISCLOSURE OF INVENTION

15 It is, therefore, an object of the present invention to provide a method
and system for automating the management of an inventory of consumer items at a
consumer location using a programmed device that accepts input data and executes
control logic for automating inventory management.

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In carrying out the above object, a method for automating the management of an inventory of consumer items is provided. The method comprises receiving at least one shopping list including at least one item, and establishing a shopping list trend based on the at least one shopping list. The method further
5 comprises generating a smart list with control logic, in accordance with the shopping list trend, such that the smart list is predicative of a next shopping list. That is, in accordance with the method, a programmed device accepts input data and executes control logic for automating inventory management of, for example, groceries or other items that are purchased on a regular basis.

10 In one embodiment, the method further comprises determining a shopping list of a shopping trip, storing information indicative of the shopping list on a data storage medium. Thereafter, the information is retrieved from the data storage medium. For example, the data storage medium may be a smart card having a magnetic strip that is scanned at the store location, and is later processed by
15 control logic at the user home.

In another embodiment, the method further comprises determining a shopping list of a shopping trip, and sending information indicative of the shopping list over a network. Thereafter, the information is received from the network at the control logic at the user location. That is, the store and consumer location may be
20 connected over a network, such as the Internet, so that shopping list information may be automatically sent between the store and the consumer location or residence, or kept remotely and sent to the consumer location on demand.

The control logic may generate the smart list based on consumer shopping patterns (a series of shopping lists received from different shopping trips
25 by the consumer). Alternatively, generating the smart list may be further based on consumed item lists. This alternative method further comprises receiving at least one consumed item list including at least one item that has been consumed. For example, receiving the at least one consumed item list may be performed by identifying an item upon consumption thereof. The item, for example, has a tag and
30 the item is identified by recognizing the tag. For example, the tag may be a bar

code, a magnetic strip or even a radio device. Alternatively, the at least one consumed item may be identified upon consumption thereof by recognizing the item with a camera.

5 To help the control logic establish the shopping list trend, the method preferably further comprises comparing the smart list generated by the control logic with the next shopping list. That is, the smart list that the control logic predicted for the next shopping list is compared to the actual next shopping list when the consumer shops. Thereafter, the shopping list trend is modified based on the comparison.

10 Still further, in an embodiment of the present invention, generating the smart list further comprises receiving a plurality of item price lists from a corresponding plurality of shopping locations. A shopping location may be recommended based on a plurality of item price lists and the smart list. Still further, generating the shopping list may include receiving an item list for a recipe, and generating the smart list further based on the item list for the recipe.

15 Further, in carrying out the present invention, a system for managing an inventory of consumer items at a consumer location is provided. The system comprises control logic operative to receive at least one shopping list including at least one item. The control logic is further operative to establish a shopping list trend based on the at least one shopping list, and to generate a smart list in
20 accordance with the shopping list trend such that the smart list is predicative of a next shopping list.

25 The at least one shopping list may be received, for example, from a data storage medium or over a network connection. Further, preferably, the control logic is further operative to receive at least consumed item list including at least one item that has been consumed, and the shopping list trend is appropriately further based on the at least one consumed item list. The consumed item list may be generated by identifying an item upon consumption thereof with, for example, a scanner that recognizes a tag on the item or a camera that recognizes the item.

Further, the system control logic is preferably operative to compare the smart list with the next shopping list, and to modify the shopping list trend based on the comparison. That is, the control logic learns the shopping list trend based on mistakes in its predictions of the next shopping list. And further, preferred
5 embodiments of the system use the control logic to prepare price lists and recommend a shopping location, and also use the control logic to receive recipes and generate shopping lists based on recipes.

The system control logic preferably is a smart device sized for integration with a home appliance, such as a refrigerator. In the alternative, the
10 control logic may be a computer program on a computer readable storage media having information stored thereon representing instructions. The instructions, which are the control logic, are executed by the computer to manage consumer item inventory. When the control logic is a smart device integrated with a home appliance, the smart device may be provided with a display for displaying the smart
15 list. Further, in a preferred embodiment, the smart device receives information over a network connection, and may be on a local network with other devices in the home.

The advantages associated with embodiments of the present invention are numerous. For example, embodiments of the present invention allow a consumer
20 to have shopping lists generated automatically by control logic. The control logic may be a smart device and/or a computer program. Advantageously, the control logic establishes a shopping trend based on the consumer's buying habits (and alternatively further based on consumption habits). Preferably, the smart device is configured with an open software interface. For example, a smart device connected
25 to a home network may interface with various software applications on a home computer to allow the smart list generation to consider and co-mingle various inputs in addition to shopping habits. For example, budget software and diet planning software are two examples of software that could provide additional input to the smart device.

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FIGURE 2 is a computer operative to execute control logic stored on a computer readable storage medium to automate inventory management of consumer items;

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FIGURE 6 is a block diagram illustrating a preferred embodiment of the present invention where the shopping list trend is modified based on the comparison of the smart list with the next shopping list;

-5-

FIGURE 8 is a block diagram illustrating generating the smart list further based on an item list for a recipe in accordance with the present invention; and

FIGURE 9 is a block diagram illustrating the general flow of information to the control logic, and the generation of the smart list.

BEST MODE FOR CARRYING OUT THE INVENTION

With reference to Figure 1, a refrigerator is generally indicated at 10. A system of the present invention for managing an inventory of consumer items at a consumer location includes a programmed device or smart device 12. Device 12 accepts input data and executes control logic for automating inventory management. Preferably, reading device 14 is provided to recognize items as they are consumed or used. Device 14 may be in the form of a camera or a scanner if each item has a bar code thereon. Further, other types of tags and appropriate tag recognition devices are contemplated. In the embodiment illustrated, a computer readable storage medium 16, in the form of a card having a magnetic strip 18, is slid through slot 20 on device 12 to provide shopping list information to device 12.

In this embodiment, the consumer may carry card 16 in a wallet or purse, along with credit cards and the like, to the store. At the store, upon checking out and paying for goods, card 16 may be slid through a device at the store which puts information on the magnetic strip 18 indicative of the items just purchased. Upon returning home, card 16 may be passed through slot 20 of device 12 to give this information to device 12. Device 12 executes control logic in accordance with the present invention to establish a shopping list trend and predict a smart list that is predicative of a future shopping list. Of course, although as shown, the smart device 12 is integrated with an appliance, for example, refrigerator 10, it is appreciated that device 12 may be a stand alone device or may be a computer program, or may be implemented in various control logic portions that are spread out over more than one device.

It is to be appreciated that over time, as the consumer makes numerous shopping trips and provides the purchased item shopping list information to smart device 12, smart device 12 uses control logic to establish a shopping trend and then predicts future shopping lists. Preferably, reader 14 is used to track when
5 items are used and also provide that information to smart device 12 to help make the smart list more accurate.

Further, it is possible to make the smart device ignore certain shopping lists or particular items off of a shopping list. For example, when shopping for a party, it may be desirable to ignore the entire list or certain items on
10 the list to prevent the data from skewing the predictive control.

As mentioned previously, the control logic may be in the form of instructions on a computer readable storage medium as best shown in Figure 2. A computer is generally indicated at 22. Computer 22 includes a desktop case 24 that contains a processor, memory, and appropriate computer architecture as is well
15 known in the art of computer hardware. Computer 22 may include any number of different storage media readers and associated storage media, such as a floppy disk drive 32 and a compact disk read-only memory drive 34. Further, computer 22 may include a hard disk drive (not specifically shown). Floppy disk drive 32 is used to read computer readable storage media in the form of a floppy disk 36. Compact disk
20 read-only memory drive 34 is used to read computer readable storage media in the form of a compact disk 38. The control logic for embodiments of the present invention may be stored on any type of media that is readable by computer 22. Further, the shopping list information may be received by computer 22 in any format such as on a computer disk, or received over a network such as the Internet to a
25 network interface card. That is, the present invention is independent of any particular form for the control logic, and independent of any particular technique for sending/receiving shopping list information.

It is to be appreciated, however, that in the preferred embodiment, shopping list information is received over a network. Further, it is appreciated that

computer 22 may connect to a network, or smart device 12 (Figure 1) may connect to a network to receive data.

Computer 22 further includes input devices, for example, a keyboard 28 and a mouse 30 are provided. Computer 22 may interface to other networks such as the Internet through a network interface card (not specifically shown) or a modem 40. Still further, information may be displayed to the user on any type of output device, such as display device 26 or printer 42. Of course, the configuration of computer 22 is exemplary, as many configurations are suitable.

In Figure 2, a program is executed by computer 22 to provide the same functionality as that provided by smart device 12 and associated components shown in Figure 1. In Figures 3-8, preferred methods are described. These methods may be performed at the consumer location using a programmed device that accepts input data and executes control logic for automating inventory management. For example, computer 22 or smart device 12 may be used to achieve embodiments of the present invention. Further, device 12 may have a data connection to computer 22, and the smart device and the computer may cooperate to achieve embodiments of the present invention.

Referring to Figure 3, a first method of the present invention is generally indicated at 60. At block 62, a shopping list of a shopping trip is determined. The shopping list may be determined when the customer checks out at the grocery (or other) store so that the shopping list accurately lists each item that was purchased by the consumer. The inventors believe that embodiments of the present invention are suitable for groceries and other items purchased at the grocery store such as perishable items, and including any items that are purchased on a regular basis for use at the consumer home. At block 64, the store shopping list information is put on a data storage medium. The data storage medium may be a credit card sized card having a magnetic strip thereon. Alternatively, the storage medium may be a computer disk or known type of data storage medium including solid-state devices.

At block 66, after the consumer returns home, the shopping list information is retrieved from the storage medium. That is, if a credit card sized magnetic strip card is used as the medium, the card is run through a card reader. If a computer disk is used as the medium, the stored file is read off the disk with the appropriate computer disk drive (floppy, CDRom, CD-RW, DVD, etc.). That is, an appropriate reader is used to read the shopping list information and provide that information to the system control logic, which may be a programmed smart device, or a computer program. Of course, it is appreciated that the programmed smart device may be in the form of application specific control logic. That is, programming could be in hardware, firmware, software, or combinations thereof.

At block 68, a shopping list trend is established. The shopping list trend is established when the control logic is executed and the shopping list along with previous shopping lists and any other inputs are examined by the control logic to establish the shopping list trend. At block 70, a smart list is generated with the control logic, in accordance with the shopping list trend, such that the smart list is predictive of a next shopping list. It is possible that the smart list is generated by looking at shopping lists established at the checkout counter. Of course, additional information such as consumed item lists and previous differences between the generated smart list and the next shopping list may be used to help establish the shopping list trend.

Further, the generated shopping list may also be further based on user input. For example, the user could input an approximate time between the present shopping trip and a future shopping trip. Accordingly, the generated list should include sufficient quantity of items to avoid shortages until the future trip with a safety margin of a preselected number of days.

With reference to Figure 4, a second method of the present invention is generally indicated at 72. At block 74, a shopping list is determined for a shopping trip. At block 76, the shopping list information is sent over a network. For example, the shopping list information may be sent over a data network, such as the Internet, so as to allow the smart device or program executing on a computer

to retrieve the shopping list information. Further, the information may be sent directly to the inventory management system or may be stored somewhere on the network for later retrieval by the consumer from the network. Further, for example, in an alternative, the information may be sent at least partially over the public switched telephone network (PSTN) to reach the smart device from the store. In any available fashion, the shopping list information is received from the network at block 78.

At block 80, the shopping list trend is established, and at block 82 the smart list is generated with control logic, in accordance with the trend. As mentioned previously, and as best shown in Figure 5, in a preferred method generally indicated at 90, consumed item information is used to establish the shopping list trend in addition to purchased item information. At block 92, a consumed item is identified by, for example, a camera or a bar code scanner or other recognition device. At block 94, consumed item information is received at the smart device. At block 96, the shopping list trend is established further based on the consumed item information in addition to the purchased item information.

With reference to Figure 6, a block diagram of preferred operations of the control logic is generally indicated at 100. At block 102, the smart list is compared with the next shopping list. That is, the control logic (on either a smart device or within a computer program) generates a smart list. After a shopping trip, the smart device compares the generated smart list with the actual shopping list that was generated at the checkout counter. At block 104, the shopping list trend may be modified based on the comparison. That is, when the smart device expected certain items to be purchased, and the consumer did not purchase those items, the smart device learns a little more about the shopper's buying habits, and modifies the shopping trend accordingly.

Further, when the generated shopping list is correct in its prediction for the shopping list, the smart device may weigh the established trend even heavier, making the trend less susceptible to minor deviations in buying habits in the near future. That is, if the smart device is correct in its prediction of the purchase of

certain items over a long period of time, only a few occurrences of these items not being purchased upon the prediction of their purchase will not greatly affect the shopping trend because correct predictions result in a more heavily weighed trend. Of course, preferably the user has the option of not allowing certain unpredicted purchases affect the trend. For example, the user may desire that a shopping trip just before a large family get together doesn't affect the established shopping trend or may desire that certain items from a particular shopping list do not affect the trend.

With reference to Figure 7, as generally indicated at 110, an alternative embodiment of the present invention receives item price lists from a plurality of shopping locations as indicated at block 112. At block 114, a shopping location is recommended based on the smart list and price lists. Of course, the shopping location may be recommended further based on store location or consumer preferences. For example, a consumer may prefer certain stores much more than other stores. As such, the smart device would not recommend the non-preferred stores unless the price savings were so great so as to outweigh the customer's preference of the other stores.

As best shown in Figure 8, a block diagram generally indicated at 120 indicates another optional feature of the present invention. At block 122, an item list for a recipe is received by the smart device. At block 124, the smart list is generated further based on the item list for the recipe.

It is to be appreciated that embodiments of the present invention may establish a shopping trend based on buying and using habits of a consumer. Preferably, the shopping trend is modified by weighing the trend based on good and bad decisions by the control logic. Further, in an alternative embodiment, the consumer may train or teach the smart device by changing or suggesting items directly (instead of comparing after shopping). In accordance with the present invention, purchases of consumer items for use in the household are integrated with an intelligent agent in the home.

The intelligent agent may be in the form of a smart device that is standalone or integrated with an appliance, or may be in the form of a program executable by a computer or other device capable of executing instructions. In a prototype, the inventors have found that a smart device at a refrigerator, and an
5 under the sink scanner make a suitable implementation for the present invention. The smart device on the refrigerator may have a display, such as a liquid crystal display. Further, the smart device may have an open software interface such that other software may provide additional input. For example, budget software or dietary software may provide input to the smart device.

10 In general, as shown in Figure 9, the present invention generates a smart list as generally indicated in block diagram 130. Control logic 132, which may take a number of different forms, generates smart list 134. The smart list trend is established based on a number of inputs. Five exemplary inputs are shown in communication with control logic 132 over network 131, but others are
15 contemplated. Purchase data 136 may help establish a purchasing pattern, while consumption data 138 may be provided as additional data for control logic 132. Still further, user feedback 140 may tell the control logic how well it is doing with the smart list generation. Even further, an open software interface may allow additional inputs such as meal plan information 142 and budget plan information 144.

20 While embodiments of the invention have been illustrated and described, it is not intended that these embodiments illustrate and describe all possible forms of the invention. Rather, the words used in the specification are words of description rather than limitation, and it is understood that various changes may be made without departing from the spirit and scope of the invention.

WHAT IS CLAIMED IS:

- 1 1. A method for automating the management of an inventory of
2 consumer items at a consumer location using a programmed device that accepts input
3 data and executes control logic for automating inventory management, the method
4 comprising:
5 receiving at least one shopping list including at least one item;
6 establishing a shopping list trend based on the at least one shopping
7 list; and
8 generating a smart list with the control logic, in accordance with the
9 shopping list trend, such that the smart list is predictive of a next shopping list.
- 1 2. The method of claim 1 wherein receiving the at least one
2 shopping list further comprises:
3 determining a shopping list of a shopping trip;
4 storing information indicative of the shopping list on a data storage
5 medium; and
6 thereafter, retrieving the information from the data storage medium.
- 1 3. The method of claim 1 wherein receiving the at least one
2 shopping list further comprises:
3 determining a shopping list of a shopping trip;
4 sending information indicative of the shopping list over a network;
5 and
6 receiving the information from the network.
- 1 4. The method of claim 1 further comprising:
2 receiving at least one consumed item list including at least one item
3 that has been consumed, wherein the shopping list trend is further based on the at
4 least one consumed item list.
- 1 5. The method of claim 4 wherein receiving the at least one
2 consumed item list further comprises:

3 identifying an item upon consumption thereof, the item having a tag
4 and the item being identified by recognizing the tag.

5
6 6. The method of claim 5 wherein the tag is a bar code and the
7 tag is recognized by scanning the bar code.

1 7. The method of claim 4 wherein receiving the at least one
2 consumed item list further comprises:
3 identifying an item upon consumption thereof by recognizing the item
4 with a camera.

1 8. The method of claim 1 further comprising:
2 comparing the smart list with the next shopping list; and
3 modifying the shopping list trend based on the comparison.

1 9. The method of claim 1 wherein generating the smart list
2 further comprises:
3 receiving a plurality of item price lists from a corresponding plurality
4 of shopping locations; and
5 recommending a shopping location based on the plurality of item price
6 lists and the smart list.

1 10. The method of claim 1 wherein generating the shopping list
2 further comprises:
3 receiving an item list for a recipe; and
4 generating the smart list further based on the item list for the recipe.

1 11. A system for managing an inventory of consumer items at a
2 consumer location, the system comprising:
3 control logic operative to receive at least one shopping list including
4 at least one item, to establish a shopping list trend based on the at least one shopping
5 list, and to generate a smart list in accordance with the shopping list trend such that
6 the smart list is predictive of a next shopping list.

1 12. The system of claim 11 wherein the control logic operative to
2 receive the at least one shopping list is further operative to retrieve the at least one
3 shopping list from a data storage medium.

1 13. The system of claim 11 wherein the control logic operative to
2 receive the shopping list is further operative to receive the at least one shopping list
3 over a network connection.

1 14. The system of claim 11 wherein the control logic is further
2 operative to receive at least one consumed item list including at least one item that
3 has been consumed, and wherein the shopping list trend is further based on the at
4 least one consumed item list.

1 15. The system of claim 14 wherein the control logic operative to
2 receive the at least one consumed item list is further operative to identify an item
3 upon consumption thereof, the item having a tag and the item being identified by
4 recognizing the tag.

5 16. The system of claim 15 wherein the tag is a bar code and the
6 tag is recognized by scanning the bar code.

1 17. The system of claim 14 wherein the control logic operative to
2 receive the at least one consumed item list is further operative to identify an item
3 upon consumption thereof by recognizing the item with a camera.

1 18. The system of claim 11 wherein the control logic is further
2 operative to compare the smart list with the next shopping list, and to modify the
3 shopping list trend based on the comparison.

1 19. The system of claim 11 wherein the control logic operative to
2 generate the smart list is further operative to receive a plurality of item price lists

3 from a corresponding plurality of shopping location, and to recommend a shopping
4 location based on the plurality of item price lists and the smart list.

5 20. The system of claim 11 wherein the control logic operative to
6 generate the shopping list is further operative to receive an item list for a recipe, and
7 to generate the smart list further based on the item list for the recipe.

1 21. The system of claim 11 wherein the control logic comprises:
2 a smart device sized for integration with a home appliance.

1 22. The system of claim 21 wherein the smart device further
2 comprises:
3 a display for displaying the smart list.

1 23. The system of claim 11 wherein the control logic comprises:
2 a computer readable storage media having instructions thereon that are
3 executable by a computer to manage the inventory of consumer items at the
4 consumer location.

ABSTRACT OF THE DISCLOSURE

A method and system for automating the management of an inventory of consumer items at a consumer location uses a programmed device that accepts input data and executes control logic for automating inventory management. At least
5 one shopping list is received, a shopping list trend is established, and a smart list is generated with the control logic, in accordance with the shopping list trend, such that the smart list predictive of a next shopping list.

5016 MEDO 5016 PUS

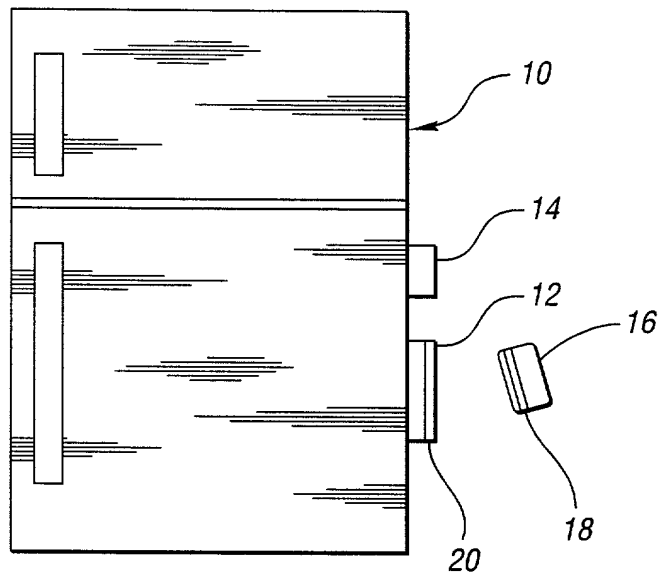


Fig. 1

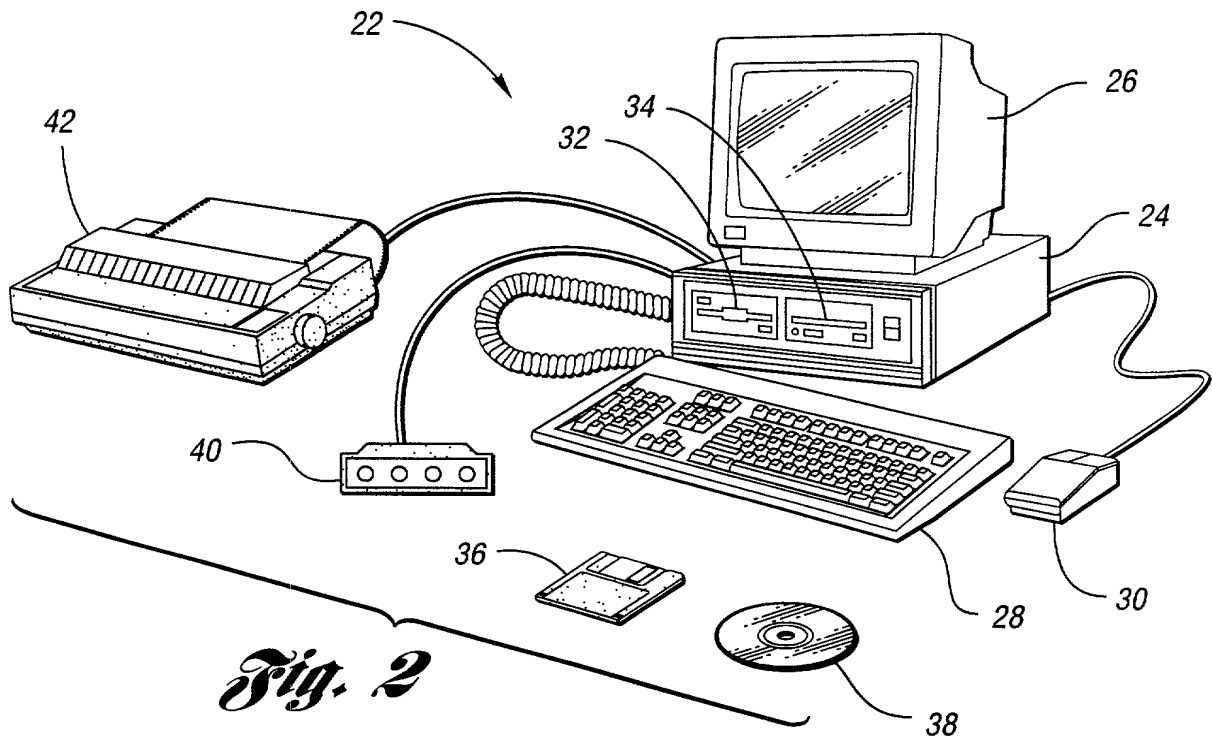
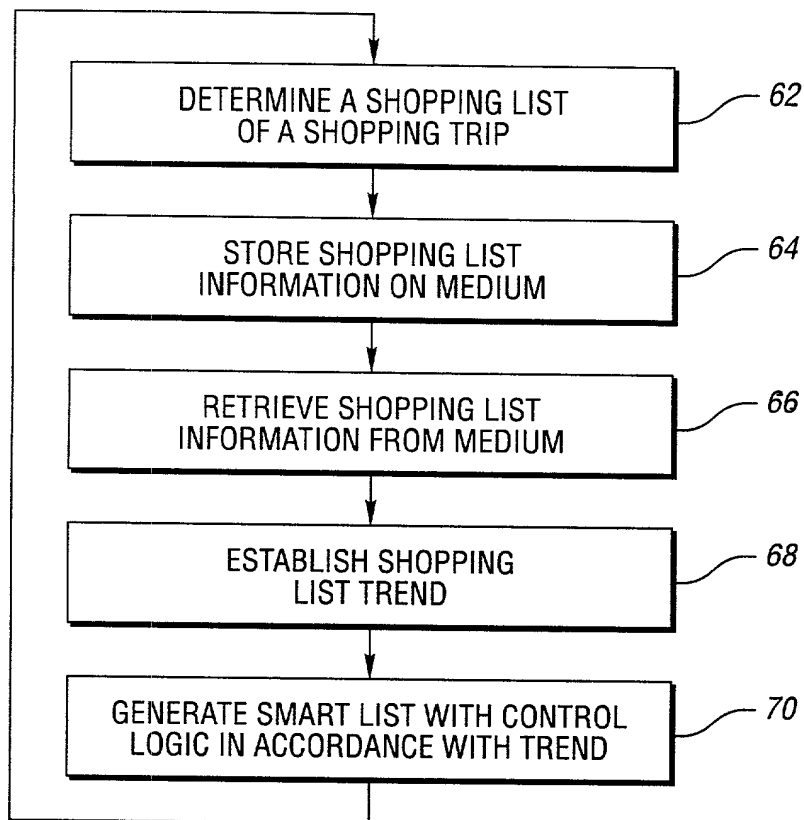
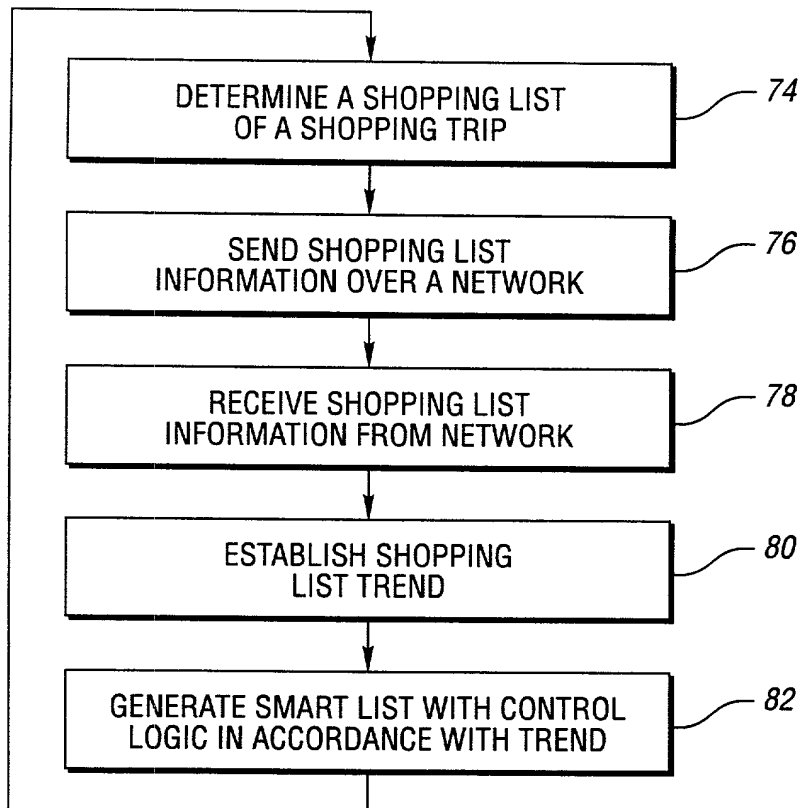


Fig. 2



60

Fig. 3



72

Fig. 4

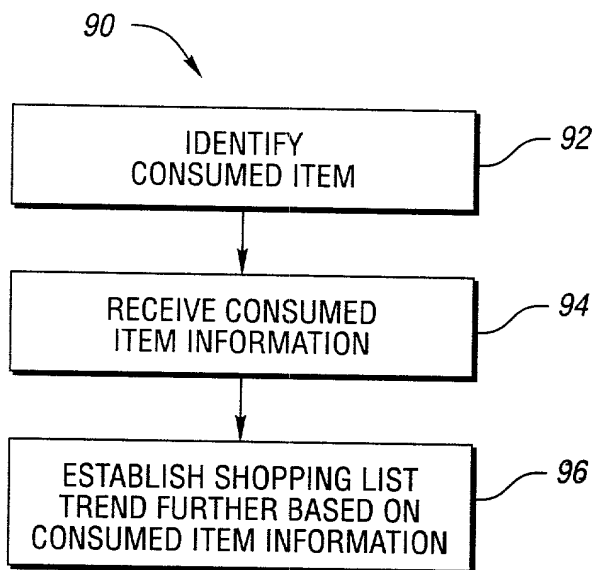


Fig. 5

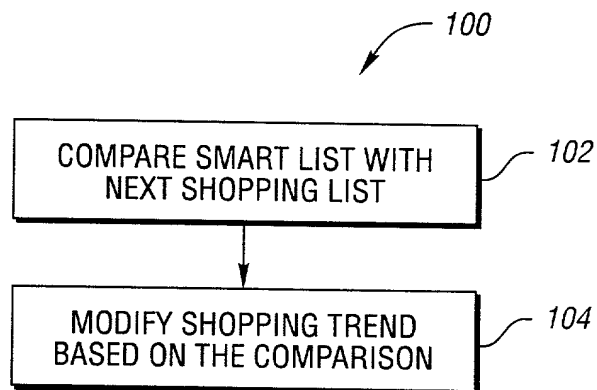


Fig. 6

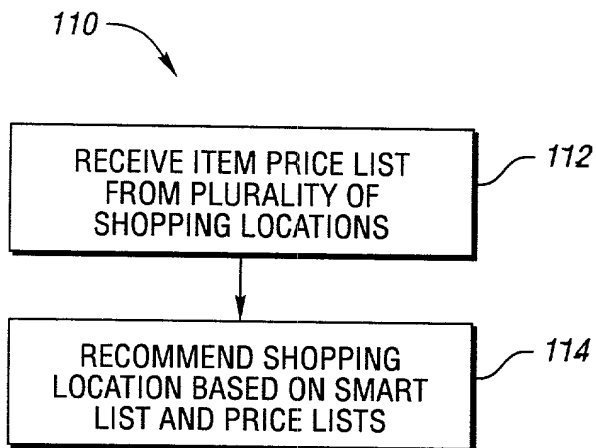


Fig. 7

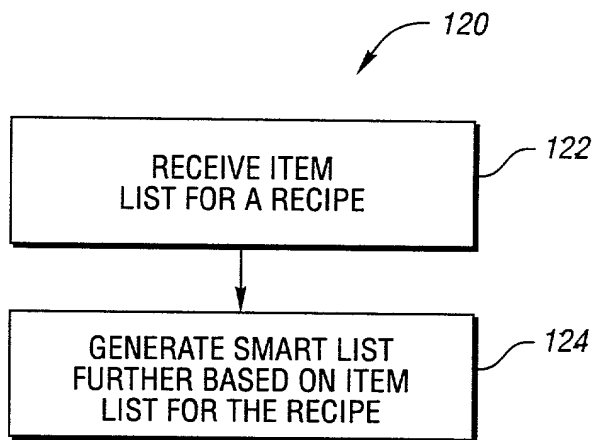


Fig. 8

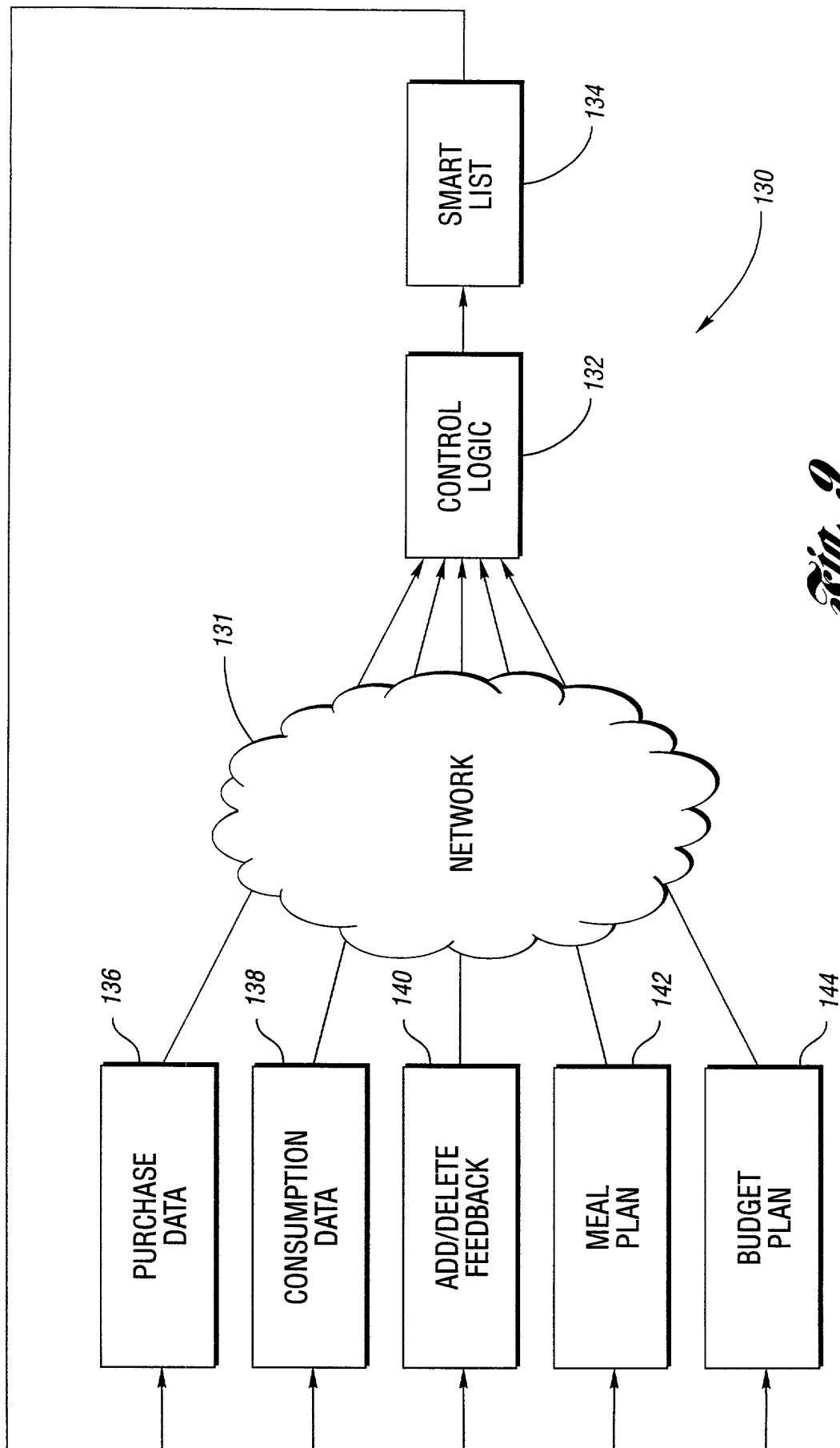


Fig. 9

DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

Atty. Docket No. 5016 (MEDO 5016 PUS)
First Named Inventor J. Clarke Stevens

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD AND SYSTEM FOR AUTOMATING INVENTORY MANAGEMENT OF CONSUMER ITEMS

the specification of which:

- ☒ is attached hereto; or
☐ was filed on (MM/DD/YYYY) ____ as U.S. Application Number or PCT International Application Number ____, and was amended on (MM/DD/YYYY) ____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below, and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

<i>Prior Foreign Application Number(s)</i>	<i>Country</i>	<i>Foreign Priority Date (MM/DD/YYYY)</i>	<i>Priority Not Claimed</i>	<i>Certified Copy Attached? (Yes/No)</i>

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

<i>Application Number(s)</i>	<i>Filing Date (MM/DD/YYYY)</i>

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

<i>Application Number(s)</i>	<i>Filing Date (MM/DD/YYYY)</i>	<i>Status: Patented, Pending, Abandoned</i>

Declaration for Patent Application (cont'd.)Atty. Docket No. 5016 (MEDO 5016 PUS)

I hereby appoint the following registered practitioners to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Ernie L. Brooks, Reg. No. 26,260; James A. Kushman, Reg. No. 25,634; David R. Syrowik, Reg. No. 27,956; Mark A. Cantor, Reg. No. 30,614; Ralph M. Burton, Reg. No. 17,748; Robert C.J. Tuttle, Reg. No. 27,962; Earl J. LaFontaine, Reg. No. 30,766; Ronald M. Nabozny, Reg. No. 28,648; Thomas A. Lewry, Reg. No. 30,770; John E. Nemazi, Reg. No. 30,876; Kevin J. Heintz, Reg. No. 29,805; William G. Abbatt, Reg. No. 31,936; Donald J. Harrington, Reg. No. 17,427; Paul M. Schwartz, Reg. No. 33,278; Timothy G. Newman, Reg. No. 34,228; Frederick M. Ritchie, Reg. No. 18,669; Robert C. Brandenburg, Reg. No. 29,048; A. Frank Duke, Reg. No. 20,937; John M. Halan, Reg. No. 35,534; Jeffrey M. Szuma, Reg. No. 35,700; James R. Ignatowski, Reg. No. 26,741; Frank A. Angileri, Reg. No. 36,733; William G. Conger, Reg. No. 31,209; Sangeeta G. Shah, Reg. No. 38,614; Christopher W. Quinn, Reg. No. 38,274; Robert C. Jones, Reg. No. 35,209; David S. Bir, Reg. No. 38,383; Konstantine J. Diamond, Reg. No. 39,657; James N. Kallis, Reg. No. 41,102; Hugo A. Delevie, Reg. No. 32,688; Ralph E. Smith, Reg. No. 35,474; Michael S. Brodbine, Reg. No. 38,392; Jeremy J. Curcuri, Reg. No. 42,454; Mark D. Chuey, Reg. No. 42,415; and John J. Ignatowski, Reg. No. 36,555; Pete N. Kioussis, Reg. No. 41,117; Gigette M. Bejin, Reg. No. 44,027; Stephanie M. Mansfield, Reg. No. 43,773; Mark E. Stuenkel, Reg. No. 44,364; Judson D. Cary, Reg. No. 38,097.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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